

This listing of claims replaces all prior versions, and listings of claims in the instant application:

Listing of Claims:

1. (Currently amended) The structure as claimed in Claim 3,

~~the substrate comprising a lead frame, and the clamp comprising:~~

a window formed to expose upward a die mounted on [[a]] ~~the~~ die pad of the lead frame and leads on an outer circumference of the die on a heater block during a wire bonding process; and

at least one or more observation holes comprising the observation hole, the at least one or more observation holes formed in an outer circumference of the window ~~to set the gate of the lead frame within a lead eye box and a lead eye point.~~

2. (Previously presented) The structure as claimed in claim 1, wherein the at least one or more observation holes are located in opposite positions of the outer circumference of the window to detect an orientation not only of a normal lead frame but also of an inverted lead frame.

3. (Currently amended) A structure for detecting the orientation of a lead frame comprising:

the lead frame comprising:

a gate;

a support bar;

a die pad, the gate serving to make resin flow towards the die pad during molding; and a substrate comprising

an unsymmetrical part selected from the group consisting of a dent part of [[a]] the gate and a plated layer on [[a]] the gate; and
a clamp, the unsymmetrical part being visible through an observation hole of the clamp; and

a camera and pattern recognition system comprising:

a first lead eye box and a first lead eye point on the unsymmetrical part of the lead frame, the first lead eye box comprising an image of a first area of the lead frame and the first lead eye point being a specific point within the first lead eye box; and

a second lead eye box and a second lead eye point on the support bar of the lead frame, the second lead eye box comprising an image of a second area of the lead frame and the second lead eye point being a specific point within the second lead eye box.

4-5. (Canceled)

6. (Previously presented) The structure as claimed in claim 3 wherein the plated layer comprises a material selected from the group consisting of aluminum, silver, gold, palladium, nickel, lead, and tin alloys.

7-9. (Canceled)

10. (Currently amended) The structure as claimed in claim 3 wherein the lead frame substrate comprises a normal lead frame.

11. (Currently amended) The structure as claimed in claim 3 wherein the lead frame substrate comprises an inverted lead frame.

12. (Canceled)

13. (Original) The structure as claimed in claim 3 further comprising a die exposed through a window of the clamp.

14. (Currently amended) The structure as claimed in claim 13 wherein leads of the lead frame substrate are exposed through the window of the clamp.

15. (Original) The structure as claimed in claim 13 wherein the die is a symmetrical die.

16. (Original) The structure as claimed in claim 13 wherein the die comprises a specific pattern.

17-26. (Canceled.)

27. (Currently amended) A structure for detecting the orientation of a lead frame comprising:

[[a]] the lead frame comprising:

an unsymmetrical part selected from the group consisting of a dent part of a gate and a plated layer on a gate;

a support bar; and

a die pad; and

the gate, the gate serving to make resin flow towards the die pad during molding;

a die mounted on the die pad;

a clamp comprising:

a window, the die being exposed through the window; and

an observation hole, the unsymmetrical part being exposed through the observation hole, wherein the support

bar is located on an outer circumference of the clamp;
and

a camera and pattern recognition system comprising:

a first lead eye box and a first lead eye point on
the unsymmetrical part of the lead frame, the first lead
eye box comprising an image of a first area of the lead
frame and the first lead eye point being a specific point
within the first lead eye box; and

a second lead eye box and a second lead eye point on
the support bar of the lead frame, the second lead eye
box comprising an image of a second area of the lead
frame and the second lead eye point being a specific
point within the second lead eye box.

28. (Previously presented) The structure as claimed in claim 27 wherein the die comprises a specific pattern.

29. (Currently amended) A structure for detecting the orientation of a lead frame comprising:

[[a]] the leadframe comprising:

a gate;

a support bar;

a die pad, the gate serving to make resin flow
towards the die pad during molding; and

an unsymmetrical part selected from the group
consisting of a dent part of [[a]] the gate and a plated
layer on [[a]] the gate; and

a clamp comprising:

a window formed to expose upward a die mounted on
[[a]] the die pad of the lead frame and leads on an outer
circumference of the die; and

an observation hole; and

a camera and pattern recognition system comprising:

a first lead eye box and a first lead eye point set
on the unsymmetrical part of the lead frame through the
observation hole, the first lead eye box comprising an
image of a first area of the lead frame and the first
lead eye point being a specific point within the first
lead eye box formed to set the unsymmetrical part of the
lead frame within a lead eye box and a lead eye point.

30. (Canceled)

31. (Previously presented) The structure as claimed in Claim 16 wherein the specific pattern is adjacent an edge of the die and located outside of bond pads of the die.

32. (Currently amended) The structure as claimed in Claim 3 wherein the clamp comprises:

a window formed to expose upward a die mounted on [[a]]
the die pad of the substrate lead frame and leads on an outer circumference of the die; and

two observation holes comprising the observation hole.

33. (Canceled)